



PREVENTION OF RETINAL INIURY AND DEGENERATION BY SPECIFIC FACTORS

5 This application claims priority of United States Patent Application Serial No.
08/334,859 filed November 4, 1994, which is a continuation of United States Patent
Application Serial No. 07/836,090 filed February 14, 1992, which is a
continuation-in-part of United States Patent Application Serial No. 07/691,612 filed
April 25, 1991, which is a continuation-in-part of United States Patent Application
Serial No. 07/570,657 filed August 20, 1990 and issued as United States Patent No.
10 5,229,500, which is a continuation-in-part of Serial No. 07/400,591 filed on August
30, 1989 and issued as United States Patent No. 5,180,820.

INTRODUCTION

15 The present invention relates to a method of preventing or delaying retinal
degeneration caused by exposure to light or other environmental trauma, or by any
pathological condition wherein death or injury of retinal neurons or photoreceptors
occurs. It is based on the discovery that specific survival promoting factors, when
introduced into the living mammalian eye, prevent damage and degeneration of
20 photoreceptors caused by light and on the further discovery that such factors can
delay photoreceptor degeneration associated with inherited diseases of the retina.

BACKGROUND OF THE INVENTION

25 Trophic factors play a major role in neuronal survival and growth during
development, in addition to the maintenance of differentiated neurons. Such
factors also appear to play a role in the survival and regeneration of injured
neurons in the central as well as in the peripheral nervous system.

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